



#3

## SEQUENCE LISTING

<110> TYRRELL, JOHN V.  
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SCHOLIN, CHRISTOPHER A.

<120> COMPOSITIONS AND METHODS FOR DETECTING RAPIDOPHYTES

<130> 50681200121

<140> 09/780,113  
<141> 2001-02-09

<150> 09/596,136  
60/141,362

<151> 2000-06-16  
1999-06-28

<160> 30

<170> PatentIn Ver. 2.1

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<211> 18  
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<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Artificial oligonucleotide probe

<220>  
<223> W is A or T/U; K is G or T/U.

<400> 1  
GWATTACCGC GGCKGCTG 18

<210> 2  
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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

<220>  
<223> M is A or C; W is A or T/U.

<400> 2  
CAGCMGCCGC GGTAATWC 18

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<213> Artificial Sequence

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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CGACTGAGCA CGACCTTT

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<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

<400> 4

GCGACGGCAA AAAGACCAGG A

21

<210> 5

<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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GCATGTTGAA ACGCTCCAG

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<210> 6

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

<400> 6

AGCAAAGGTC CTCGCTCCTA

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<210> 7

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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TACTCTCTTT TCAAAAGTCT TTTCATC

27

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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CCATGGGACA CAGCGCGCAC TAC

23

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<212> DNA

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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TACAAACCAA GGTGCACTAA TG

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<210> 14

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<212> DNA

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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AACTCTCTTT CCAAAGTTCT TTTCATC

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<212> DNA

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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ACCACGACTG AGCAGCACC TTT

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<210> 16

<211> 20

<212> DNA

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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AGCCCGGGAC CACGACTGAG

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<210> 17

<211> 23

<212> DNA

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GAGCAAAGGT CCTCCGTCCT AAC

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<212> DNA

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TACTCTCTTT TCAAAAGTCT TTTCATC

27

<210> 19

<211> 22

<212> DNA

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

<400> 19

CGGCTTCACT CGCCGTTACT AG

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<210> 20

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<213> Artificial Sequence

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<211> 21

<212> DNA

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<223> Description of Artificial Sequence:Artificial oligonucleotide probe

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<212> DNA

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<223> Description of Artificial Sequence: Artificial oligonucleotide probe

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<210> 23

<211> 23

<212> DNA

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<223> Description of -Artificial Sequence: Artificial

<400> 23

AGAGTAGCTG AGCACGCATC TCT

23

<210> 24

<211> 687

<212> DNA

<213> Chattonella antiqua

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TTCTTGAAAGC GGAGGAAAAG AACCAACTCG GATTCCCTAG TAAACGCGAG TGAAGCGGGA 60  
AGAGCTCATG TTGTAAATCT GGATGAGGAT TCCTCGTCCC GAATTGTAGT CTAGAGATGC 120  
GTGCTCAGCT ACTCTCCAGG GCTAAGTCTG TTTGTGAAAG ACAGCATCAT GGACCGGTGAT 180  
AATCCGGTTC TTGCCTTGGA TGTTGTAGCG TCCTCAACGA GTCCGAGTTGC 240  
TTGGGATTGC AGCTCTAAGC GGGTGGTAAA TTCCATCTAA AGCTAAATAT TGGTGGGAGA 300  
CCGATAGCGA ACAAGTACCC TGAGGGGAAA ATGAAAAGAA CTTTGAAGAA AGAGTTAAAT 360  
AGTACCTGAA ACTGCTGAAA GGGAAAGCGAA TGAAGTCAGT GTTGCTCTTT GTTCTCTGCA 420  
TCCTCCCTGC GGGGATTGTG TATCGAGGAC TTTGAGCTTG TCAGGATGAG TTCTCTGCCG 480  
CGGGATATGG TTTGTAGCTT GGATGCTTCT GCTGAACTCA CTCCTCTCTG CGTGGCTTGG 540  
ACTGAGGTTC CATCTTGCCG TTGCCTGCTT GTTACTCTCC TGTGTCTGTT TCTGTCTCTAC 600  
TGCTTGCACT GTTCGTTTC AGTGATTGGA CTGTGCAAGT TATGCATGCA AGGTCAGGAT 660  
CCTGACGAAT GGCCTTTATTA ACCCGAA 687

<210> 25

<211> 681

<212> DNA

<213> Chattonella subsalsa

<400> 25

GCGGAGGAAA AGAACCAACT CGGATTCCCT AGTAACGCG AGTGAAGCGG GAAGAGCTCA 60  
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CTACTCTCCA GGGCTAAGTC TGTTTGTAAG AGACAGTGTG ATGGACGGTG ATAAACCCGT 180  
TCTTGCTTGA GATGTTGTAG CGTTTGTAGC CGTCTCTCAAC GAGTCGAGTT GCTTGGGATT 240  
GCAGCTCTAA GTGGGTGGTA AATTCCATCT AAAGCTAAAT ATTGGTGGGA GACCGATAGC 300  
GAACAAGTAC CGTGAGGGAA AGATGAAAAG AACTTTGAAA AGAGAGTTAA ATAGTACCTG 360  
AAACTGCTGA AAGGGAAGCG AATGAAGTCA GTGTTGCTCT TTGTGCTCTG CATCTCCCT 420  
GCGGGGATTG TGATCGAGG ACTTTGAGCT GTGCAGGATG AGTCTCTCTG CGCGGGATAT 480  
GTTTGTATG CTGGATGCTT TTGCGGAAC ATACATTCT TGTCGTGGCT TGGACTGAGG 540  
TTCCATCTTG CGGTGCGCTG TGCCTTCCTC TCCCGTTGCT GTCTCTGTTT TACTGCTTGC 600

AGTGCTCAGT TGCAGTAGTT GGACTGTGCG TATTATGCAT GCAAGGTCAG GATCCTGACG 660  
AATGGCTTTA TTCACCCGCA A 681

<210> 26

<211> 703

<212> DNA

<213> *Fibrocapsa japonica*

<400> 26

CAGAGGAAAA GAAACAACTC GGATTCCCTA GTAACGGCGA GTGAAGCGGG AACAGCTCAT 60  
GATGTAAATC TGGGTGACGT TTCGTTACCC CGAATTGTAG TCTACAGAAG CGTGTCCAGC 120  
CGCGCCCCCTT GGCAAGATCC CCTGGAACGG GGCATCGTGG ACGGTGACAA TCCGGTTCAT 180  
GCCTGGGGTG TCGCGTGTGT ACGGGCCGTT TTCAACGAGT CGAGTTGCTT GCGATTGCAG 240  
CTCTAAGCGG GTGGTAAATT CCATCTAAAG CTAATATATT GTGGGAGACC GATAGCGAAC 300  
AAGTACCGTG AGGGAAGAT GAAAAGAACT TTGGAAGAG AGTTAAACAG TACCTGAAAT 360  
TGCTGAAAGG GAAGCGAAGG AAGTCAGTGT ATGCCGGGGG TCATATTTCG TGCTGCTCTG 420  
AGGGGTAGTG CGCGCTGTGT CCCATGGGCT GGTCCAGGATG GGTTTGTCTC CGCGGAGATT 480  
CCCAGGGTTG AGGTAGGTTC TTTTGGATTG TCAGCAACCC TGTGGCATGT CGTGGTTCGG 540  
ACCGAGGACAT TAGTGCACTT TGGTTTGTAC GGTTTTATAT GCGTGATCAT GTCTGTGACA 600  
GCATGCTGTG GCGGTTGTGT TATCGTTTAT TTGCCCTTGA TTCCCGGTGC GCTCTAGATC 660  
CTGTCAAATG GCTTTCCTCC ACCTCTTGAA AGACGGACCA AGG 703

<210> 27

<211> 715

<212> DNA

<213> *Heterosigma akashiwo*

<400> 27

ACCCGCTGAA TTAAAGCATA TAATTAAGGG GAGGAAAAGA AACCAACTCG GATTCCCTTA 60  
GTAACGGCGA GTGAAGCGGG AAGAGCTCAT GTTGTAAATC TCCAGCTTGC TGGCGAATTG 120  
TAGTCTAAAG GTGCGTGCTC AGTCGTGGTC CCGGGCTAAG TCTGTTGGAA AACAGCATCA 180  
TGGACGCTGA CAATCCGGTT CTGCGCTGGG GTCCCGCGCG GTACGAGCCG TTTCCGACGA 240  
CTGCTGTTGC TTGGGATTGC AGCACTAAGT GGGTGGTAAA TTCCATCTAA AGCTAAATAT 300  
TGGTGGGAGA CCGATAGCGA ACAAGTACCG TGAGGGAAG ATGAAAAGAC TTTTGAAAAG 360  
AGAGTAAAT AGTACTGTAA ACTCTGTAAA GGGAAAGCGAT TGAAGTCAGT GTTGCTCTCTG 420  
GTCTTTTTCG CTTCCGCCCC GTGGGSGTTG CGCGCTGGGG CCGTGGAGCT TTCAACATCG 480  
GTTCTGTCTC GCGGAAAATG TTCAGTGTGC TGGAACTTCG GGGAAACGCA CTGTCTCTGT 540  
CTGTGTTAGG ACGGAGGACC TTGCTCTCTT TGACTGCGCG TTCTCTCTCT GGGTATGCTG 600  
GTGTCTACTG CTTGCAGTTT TCATTTTCAT GTCTGCGACT GTGCGTGTTA TTCATGAGCG 660  
AACATGATGT TGAAGAAATG GCTTTAATTA CCCCCTGCTG AAACACGGAC CAAGG 715

<210> 28

<211> 681

<212> DNA

<213> *Vacuolaria virescens*

<400> 28

AACGGAGGAA AAGAATCCAA CTCGGATTCC CTAGTAACGG CGAGTGAAGC GGGGAAGAGCT 60  
CAAGTTGAAA ATCTGGGTGG GGCCTCCCCA TCCCGAATTG TAGTCTAGAG ACGCGTGCTC 120  
ACCGCTGCTC CAGGGCTAAG TCTGTTGGAA AACAGCATCA TGGACGGTGA TAATCCGGTT 180  
CTTGCCCTGG GTGTTGCGGT GTACGAGCCG TGATCCACGA GTCGAGTTGC TTGGGATTGC 240  
AGCTCTAAGC GGGTGGTAAA TTCCATCTAA AGCTAAATAT TGGTGGGAGA CCGATAGCAA 300  
ACAAGTACCG TGAGGAAAG ATGAAAAGAA CTTTGAAAAG AGAGTTAAAA AGTACCTGAA 360  
ATTGCTGAAA GGAAGCGAA TGAAGTCAGT GTCTGCTCTT GGTGTATTTT TCGGAGTCCC 420

TCGGGGGATT CCGGCACTGT GGCCTGGAGC ATGTCAGGAT GAGTTCTCTG CCGTGGGATA 480  
 TGTTTGGTGG GATTGGTACC TTCGGGGAAA CCCGCCACTC TTGTCATGGC TTGGACTGAG 540  
 GTTCATCTC GCCGTTTGGC TGCCCGTCGC TCTCTGCCGG TTGTTGCTGT CCTACTGCTT 600  
 GCAGTGCTCA GCTGCAGCTG ACTGACTGTG CGGGTCATGC ATGCGAGGTC AGGATCCTGA 660  
 GGACTGGCCG TAATAACCCA A 681

<210> 29

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Artificial

PCR Primer

<400> 29

ACCCGCTGAA TTTAAGCATA

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<210> 30

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Artificial PCR Primer

<400> 30

CCTTGGTCCG TGTTCAGA

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